FCC 47 CFR PART 15 SUBPART B

TEST REPORT

FOR

15 G-WIN Rugged Panel PC

Model : R15IA3S-VMM5HB, R15XXXX-XXXXXX (X=A~Z , a~z , 0 ~9 , Blank or Slash)

Trade Name: WinMate

Issued to

WinMate Communication INC.
9F, Number 111-6, Shing-De Rd., San-Chung City, Taipei 241, Taiwan, R.O.C.

Issued by

Global Certification Corp.

EMI Test Site	**Sansia Lab**	**No. 34-3, Zihhe Rd.,Sansia Township, Taipei County 237, Taiwan (R.O.C.)**
EMS Test Site	**Sijhih office and Lab**	**No. 146, Shiang Charng Rd., Sec. 2, Hsi Chih, Taipei Hsien 221, Taiwan, R.O.C.**

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PHOTOS OF EUT

1. GENERAL INFORMATION

Applicant	:	**WinMate Communication INC.**
Address	:	**9F, Number 111-6, Shing-De Rd., San-Chung City, Taipei 241, Taiwan, R.O.C.**
Manufacturer	:	**WinMate Communication INC.**
Address	:	**9F, Number 111-6, Shing-De Rd., San-Chung City, Taipei 241, Taiwan, R.O.C.**
EUT	:	**15 G-WIN Rugged Panel PC**
Model Name	:	**R15IA3S-VMM5HB, R15XXXX-XXXXXX (X=A~Z , a~z , 0 ~9 , Blank or Slash)**
Model Differences	:	**The difference among series models shown above is the marketing purpose. The model, R15IA3S-VMM5HB, is the testing sample, and the final test data are shown on this test report.**

Is herewith confirmed to comply with the requirements set out in the FCC Rules and Regulations Part 15 Subpart B and CISPR PUB. 22 and the measurement procedures were according to ANSI C63.4-2003. The said equipment in the configuration described in this report shows the maximum emission levels emanating from equipment are within the compliance requirements.

FCC part 15 subpart B **Class B**

Receipt Date : 12/28/2009 Final Test Date : 01/22/2010

Tested by: **Reviewed by:**

Jan. 22, 2010 Jason Yeh Jan. 22, 2010 Alex Chou

(Date) ***Jason Yeh / Vice Manager*** (Date) ***Alex Chou / Manager***

Designation Number: TW1030

1.1 DESCRIPTION OF THE TESTED SAMPLES

EUT		
EUT Type	:	☑ Engineer Type
Condition when received	:	☑ Good ☐ Damage :
EUT Name	:	15 G-WIN Rugged Panel PC
Applicant	:	WinMate Communication INC.
Manufacturer	:	WinMate Communication INC.
Model Number	:	R15IA3S-VMM5HB
Serial Number	:	N/A
FCC ID	:	N/A
Receipt Date	:	12/28/2009
Used Power	:	☑ AC POWER
Power Supply Type	:	☑ Switching
Power Cord (Input)	:	☑ AC 120 V 60 Hz 3 Pin 1.8 m Un-Shielded
Power Cord (Output)	:	☑ DC 12 V 4 Pin 1 m Un-Shielded
Power From	:	☐N/A ☑Adapter ☐BATTERY ☐Power Supply ☐DC Power Source ☐Support Unit PC ☐AC Power Source
Test Power	:	☑ AC POWER 120 V 60 Hz 3 Pin 1.8 m
The frequency of the EUT		
CPU	:	Intel® Atom N270 1.6GHz Processor
OSC/Clock Frequencies	:	(X1/ main board 1) 14.318 MHz, (X2, X3) 25 MHz, (X1/ main board 4) 24 MHz, (Y1/main board 3) 11.0592 MHz

1.2 I/O PORT OF THE EUT

I/O port type	Q'ty	Tested with
1) Audio port	3	3
2) RS232 port	1	1
3) PS/2 port	2	2
4) VGA port	1	1
5) USB port	2	2
6) RJ45 port	2	2

1.3 TEST METHODOLOGY

EUT SYSTEM OPERATION

1. The EUT was configured according to ANSI C63.4 – 2003 Section 5.2, 7.1, 7.2 & CISPR 22 - 2005.
2. All I/O ports are connected to the appropriate peripherals.
3. Photos of test configuration please refer to appendix 1.
4. Plug the EUT in.
5. Turn on all the power of the EUT and peripherals.
6. Under Windows XP, execute "Winthrax.exe" and "Media Player.exe" to perform the EMC testing procedures.
7. Connect the EUT to the remote PC and channels packet switching.
8. During the test, H patterns are shown on the monitor.
9. Measure the maximum emission noise.

1.4 DESCRIPTION OF THE SUPPORT EQUIPMENTS

Setup Diagram

See test photographs attached in appendix I for the actual connections between EUT and support equipment.

Support Equipment

Peripherals Devices:

OUTSIDE SUPPORT EQUIPMENT							
No.	Equipment	Model	Serial No.	FCC ID/ BSMI ID	Trade name	Data Cable	Power Cord
1	PC	CU5	L3ADA3F	R33B65	leveno	N/A	Unshielded 1.8m
2	MONITOR	2212Ph	E9379JA0 00980	R33037	AOC	Shielded 1.8m	Unshielded 1.8m
3	MONITOR	2212Ph	E9379JA0 00842	R33037	AOC	Shielded 1.8m	Unshielded 1.8m
4	MOUSE	M-UV83	HCA9251 0159	T41126	Logitech	Shielded 1.8m/USB	N/A
5	KEY BOARD	Y-UR83	N/A	T51160	Logitech	Shielded 1.8m / USB	N/A
6	KEY BOARD	Y-UR83	N/A	T51160	Logitech	Shielded 1.8m / USB	N/A
7	MODEM	N/A	040803838 5	N/A	ACEEX	Unshielded 0.8m	Unshielded 0.5m

8	EAR PHONE	KTSEP211B	N/A	N/A	KT.NET	Unshielded 2.1m	N/A
9	TAPE RECORDER	RQ-L11LT	2005EE-010471	R31017	Panasonic	Unshielded 1.2m	N/A
10	USB storage	TS2GJFV30	156511-6400	DOC/D33193	TRANSCEND	Shielded 1m	N/A
11	USB storage	TS1GJFV30	153685-7326	DOC/D33193	TRANSCEND	Shielded 1m	N/A
12	Adapter	EA11001C-120	N/A	N/A	EDAC	N/A	Unshielded 1m
13	MOUSE	M-UV83	HCA92510159	T41126	Logitech	Shielded 1.8m/USB	N/A
EUT							
No.	Equipment	Model	Serial No.	FCC ID/ BSMI ID	Trade name	Data Cable	Power Cord
1	Main board 1	IA30	N/A	N/A	N/A	Unshielded 0.1m	Unshielded 0.1m
2.	Main board 2	E234220	N/A	N/A	N/A	Unshielded 0.1m	Unshielded 0.1m
3	Main board 3	PCBW2210004	N/A	N/A	N/A	Unshielded 0.1m	Unshielded 0.1m
4	Main board 4	MIOSD-110	N/A	N/A	N/A	Unshielded 0.1m	Unshielded 0.1m
5	Main board 5	QF122V1	N/A	N/A	N/A	Unshielded 0.1m	Unshielded 0.1m
6	PANEL	AA150XN08	N/A	N/A	Mitsubishi	Unshielded 0.1m	Unshielded 0.1m
7	CF Card	AP-CF004GF3ER-NR (4GB)	N/A	N/A	Apacer	Unshielded 0m	Unshielded 0m
8	RAM	DDR2-667 (1G)	N/A	N/A	Transcend	Unshielded 0m	Unshielded 0m

Note: All the above equipment /cable were placed in worse case position to maximize emission signals during emission test

Grounding: Grounding was in accordance with the manufacturer's requirement and conditions for the intended use.

1.5 FEATURES OF EUT: PLEASE REFER TO USER MANUAL OR PRODUCT SPECIFICATION.

2. INSTRUMENT AND CALIBRATION

2.1 MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in the report has been calibrated once a year or in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

2.2 TEST AND MEASUREMENT EQUIPMENT

The following list contains measurement equipment used for testing. The equipment conforms to the requirement of CISPR 16-1, ANSI C63.2 and. Other required standards.

Calibration of all test and measurement, including any accessories that may effect such calibration, is checked frequently to ensure the accuracy. Adjustments are made and correction factors are applied in accordance with the instructions contained in the respective.

TABLE 1 LIST OF TEST AND MEASUREMENT EQUIPMENT

Conducted Emission Measurement					
Instrument	Manufacturer	Model No.	Serial No.	Calibration Due Date	Note
EMC Test Receiver	R&S	ESCI	100438	Jun 09, 2010	
LISN	SCHAFFNER	NNB41	03/10015	Oct 13, 2010	For EUT
LISN	EMCO	3825/2	9001-1589	Nov 02, 2010	For Support Unit
RF Cable	Huber+Suhner	RG223/U	001	Nov 02, 2010	
50ohm Terminal	N/A	50Ω	QC-TM001	Sep 24, 2010	
Impedance Stabilization	Teseq GmbH	ISN T8	23334	Dec 20, 2010	
Radiated Emission Measurement					
Instrument	Manufacturer	Model No.	Serial No.	Calibration Due Date	Note
EMC Test Receiver	R&S	ESCI	100438	Jun 09, 2010	

Bilog Antenna	SUNOL	JB1	A052204	Nov 06, 2010	
Turn table	EMCO	2080	9508-1805	N/A	
Controller	EMCO	2090	9804-1328	N/A	
Preamplifier	WIRELESS	FPA6592G	60017	Sep 24, 2010	
Spectrum Analyzer	NEX	NS-265	5044006	Aug 07, 2010	
RF Cable	JTE BAO	RG214/U	28M-002	Nov 02, 2010	
Thermo-Hygro meter	WISEWIND	4-INU-1	050100378	Apr 08, 2010	

※ Calibration interval of instruments listed above is one year

2.3 TEST PERFORMED

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver which bandwidth is set at 9KHz.

Radiated emissions were invested over the frequency range from 30MHz to 1000MHz using a receiver which bandwidth is set at 120KHz. Radiated measurement was performed at distance that from an antenna to EUT is 10meters.

2.4 APPENDIX

Appendix A: Measurement Procedure for Main Power Port Conducted Emissions

The measurements are performed in a Global lab's room; The EUT was placed on non-conductive 1.0m x 1.5m table, which is 0.8 meters above an earth-grounded.

Power to the EUT was provided through the LISN which has the Impedance (50ohm/50uH) vs. Frequency Characteristic in accordance with the standard. Powers to the LISNs were filtered to eliminate ambient signal interference and these filters were bonded to the ground plane. Peripheral equipment required to provide a functional system (support equipment) for EUT testing was powered from the second LISN through a ganged, metal power outlet box which is bonded to the ground plane at the LISN.

If the EUT is supplied with a flexible power cord, the power cord length in excess of the distance separating the EUT from the LISN shall be folded back and forth at the center of the lead so as to form a bundle not exceeding 40cm in length. If the EUT is provided with a permanently coiled power cord, bundling of the cord is not required. If the EUT is supplied without a power cord, the EUT shall be connected to the LISN by a power cord of the type specified by the manufacturer which shall not be longer than 1 meter. The excess power cord shall be bundled as described above. If a non-flexible power cord is provided with the EUT, it shall be cut to the length necessary to attach the EUT to the LISN and shall not be bundled.

The interconnecting cables were arranged and moved to get the maximum measurement. Both the line of power cord, hot and neutral, were measured.

The highest emissions were analyzed in details by operating the spectrum analyzer in fixed tuned mode to determine the nature of the emissions and to provide information which could be useful in reducing their amplitude.

Appendix B: Test Procedure for Radiated Emissions

Preliminary Measurements in the Anechoic Chamber

The radiated emissions are initially measured in the anechoic chamber at a measurement distance of 3 meters. Desktop EUT are placed on a wooden stand 0.8 meter in height. The measurement antenna is 3 meters from the EUT. The test setup in anechoic chamber is the same as open site. The turntable rotated 360°. The antenna height is 1m. The primary objective of the radiated measurements in the anechoic chamber is to identify the frequency spectrum in the absence of the electromagnetic environment existing on the open test site. The frequencies can then be pre-selected on the open test site to obtain the corresponding amplitude. The initial scan is made with the spectrum analyzer in automatic sweep mode. The spectrum peaks are then measured manually to determine the exact frequencies.

Measurements on the Open Site or Chamber

The radiated emissions test will then be repeated on the open site or chamber to measure the amplitudes accurately and without the multiple reflections existing in the shielded room. The EUT and support equipments are set up on the turntable. Desktop EUT are set up on a wooden stand 0.8 meter above the ground.

For the initial measurements, the receiving antenna is varied from 1-4 meter height and is changed in the vertical plane from vertical to horizontal polarization at each frequency. Both reading are recorded with the quasi-peak detector with 120KHz bandwidth. For frequency between 30 MHz and 1000MHz, the reading is recorded with peak detector or quasi-peak detector.

At the highest amplitudes observed, the EUT is rotated in the horizontal plane while changing the antenna polarization in the vertical plane to maximize the reading. The interconnecting cables were arranged and moved to get the maximum measurement. Once the maximum reading is obtained, the antenna elevation and polarization will be varied between specified limits to maximize the readings.

Appendix C: Warning Labels

Label Requirements

A Class B digital device subject to certification by the FCC shall carry a warning label which includes the following statement:

*** * * W A R N I N G * * ***

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Appendix D: Warning Statement

Statement Requirements

The operator's manual for a Class A digital device shall contain the following statements or their equivalent:

*** * * W A R N I N G * * ***

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment This equipment generates, uses, and can radiate radio frequency energy and, if not installed and uses in accordance with the instruction manual, may cause harmful interference to radio communications Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Notice: The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equivalent.

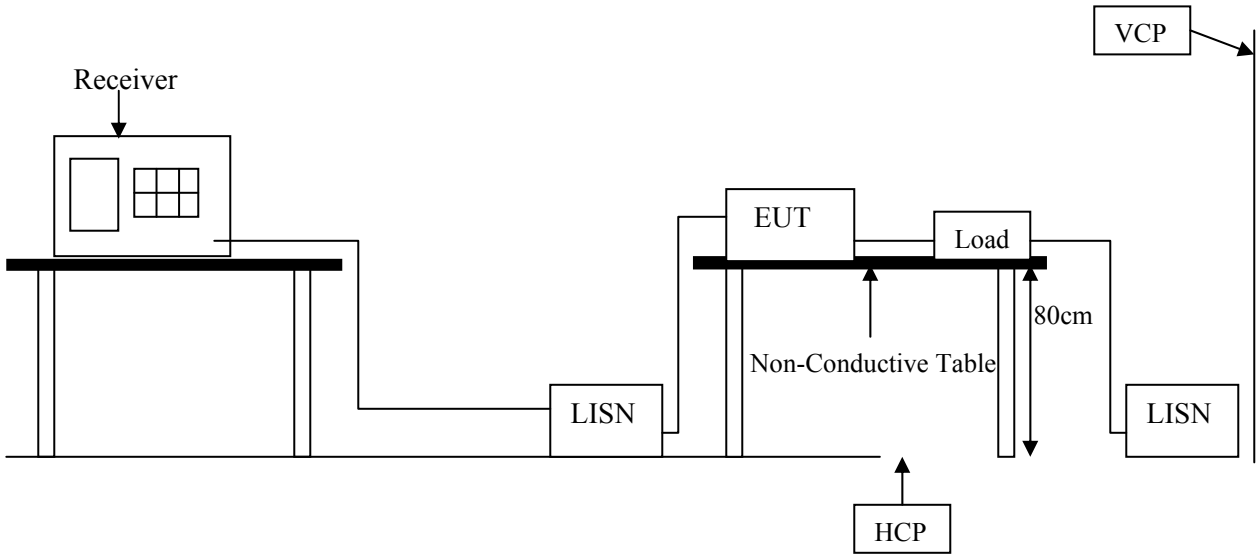
*** * * * * * * * ***

If the EUT was tested with special shielded cables the operator's manual for such product shall also contain the following statements or their equivalent:

Shielded interface cables and/or AC power cord, if any, must be used in order to comply with the emission limits.

3. CONDUCTED EMISSION MEASUREMENT

3.1 TEST SET-UP (PLEASE REFER TO APPENDIX 1)



3.2 LIMIT

Frequency range (MHz)	CLASS A		CLASS B	
	QP dB(uV)	Average dB(uV)	QP dB(uV)	Average dB(uV)
0.15-0.5	79 dBuV	66 dBuV	66 - 56 dBuV	56 - 46 dBuV
0.5-5.0	73 dBuV	60 dBuV	56 dBuV	46 dBuV
5.0-30.0	73 dBuV	60 dBuV	60 dBuV	50 dBuV

Remark: In the above table, the tighter limit applies at the band edges.

3.3 TEST PROCEDURE

The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). It provides a 50 ohm / 50 μH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50 ohm / 50 μH coupling impedance with 50 ohm termination. (Please refer to the block diagram of the test setup and photograph.)

Both sides of AC line are checked for the maximum conducted emission interference. In order to find the maximum emissions, the relating positions of equipment and all of the interference cables must be changed according to CISPR22 regulation: The measurement procedure on conducted emission interference.

The resolution bandwidth of the field strength meter is set at 9KHz

3.4 TEST SPECIFICATION

ANSI C63.4 – 2003 Section 5.2, 7.1, 7.2 & CISPR 22 – 2005 CLASS B

3.5 RESULT: PASSED

EMI Receiver/Spectrum Analyzer Configuration (for the frequencies tested)

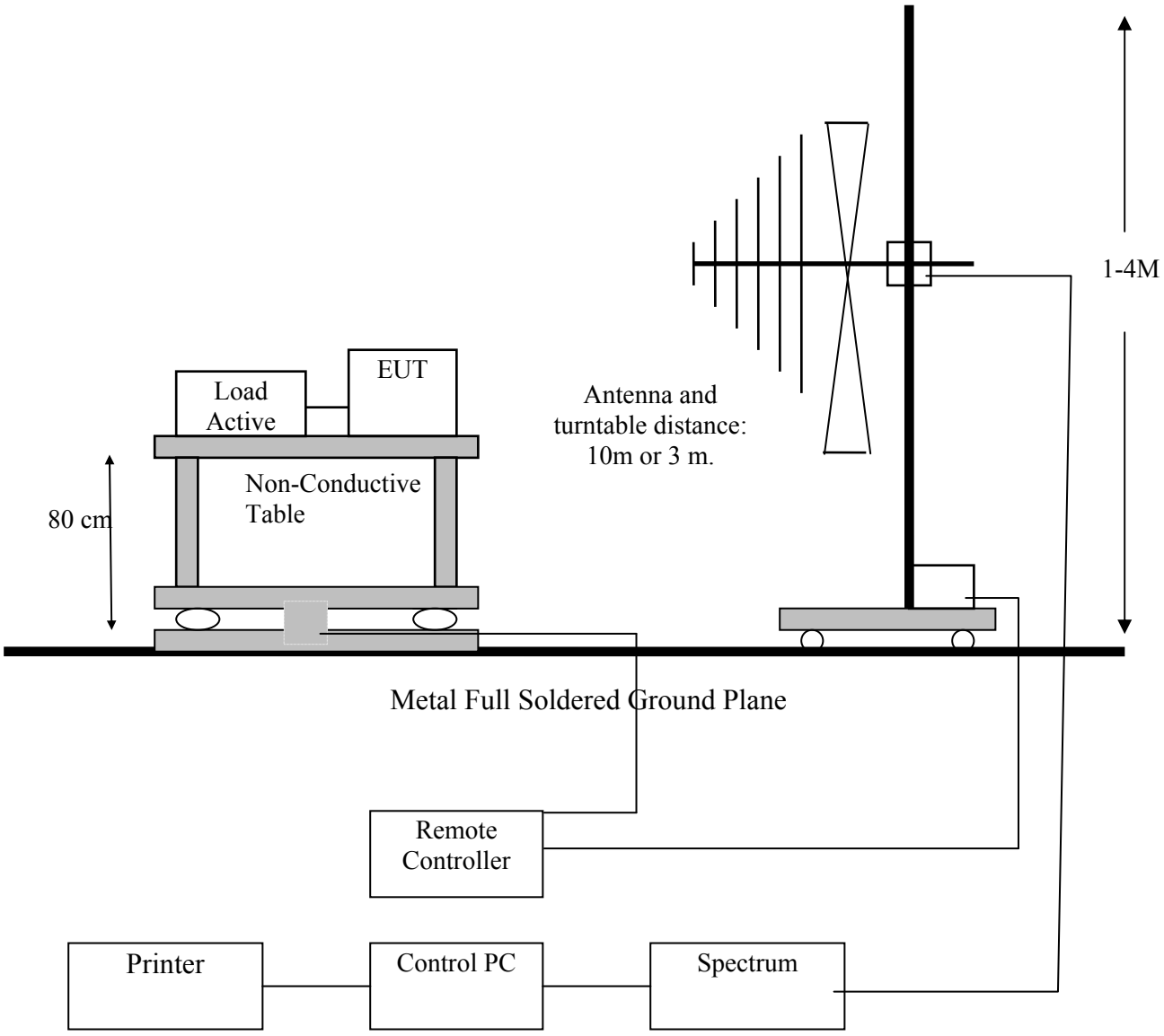
Frequency Range:	150KHz--30MHz
Detector Function:	Quasi-Peak / Average Mode
Resolution Bandwidth:	9KHz

3.6 TEST DATA:

Please refer to appendix 2.

4. RADIATED EMISSION MEASUREMENT

4.1 TEST SETUP (PLEASE REFER TO APPENDIX 1)



4.2 LIMIT

Frequency	Class A		Class B	
MHz	Distance (Meter)	Limit dBμV/m	Distance (Meter)	Limit dBμV/m
30 ~ 230	10	40	10	30
230 ~ 1000	10	47	10	37
Above 1000	10	49.5	10	43.5

Remark: In the above table, the tighter limit applies at the band edges

4.3 TEST PROCEDURE

The EUT and its simulators are placed on turn table, non-conductive and wooden table, which is 0.8 meter above ground. The turn table rotates 360 degree to determine the position of the maximum emission level. For the frequency range is below 1 GHz, the EUT was positioned such that distance from antenna to the EUT is 10 meters. For the frequency range is above 1 GHz, the EUT was positioned such that distance from antenna to the EUT is 3 meters.

For the frequency range is below 1 GHz, the antenna is moved up and down between 1 meter to 4 meter to receive the maximum emission level.

Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission, all of the interference cables must be manipulated according to CISPR regulation: the test procedure of the radiated emission measurement.

The bandwidth set on the field strength is 120 KHz when the frequency range is below 1GHz. The bandwidth set on the field strength is 1 MHz when the frequency range is above 1GHz.

4.4 TEST SPECIFICATION

ANSI C63.4 – 2003 Section 5.2, 7.1, 7.2 & CISPR 22 – 2005 CLASS B

4.5 RESULT: PASSED

The radiated mission test was passed at minimum margin : Horizontal 301.28 MHz/ 33.77 dBuV/m, Antenna Height 2.7 Meter, Turn Table 310 degree.

4.6 TEST DATA:

Please refer to appendix 2.

5. MODIFICATION LIST FOR EMC COMPLYING TEST

The modification is solely made by the applicant.
Appendix
Appendix A: Summary of Test Result
Appendix B: The test photograph of EUT
Appendix C: The Detail Photograph of EUT

Appendix A: Summary of Test Result

**** EMC Test Result: The EUT has been pass the all measurements. ****

The uncertainty is calculated in accordance with CISPR16-4-2, the total uncertainty for this test is as follows:

Uncertainty of Conducted Emission Measurement

Contribution	Probability Distribution	150KHz – 30MHz
Receiver reading	Normal (k=2)	±0.3
Cable loss	Normal (k=2)	±0.2
AMN insertion loss	Rectangular	±0.3
RCV/SPA specification	Rectangular	±0.1
combined standard uncertainty Ue(y)	normal	±0.5
Measuring uncertainty for a level of confidence of 95% U=2Ue(y)	normal (k=2)	±1.0

Uncertainty of Radiated Emission Measurement

Contribution	Probability Distribution	30MHz~1GHz
Receiver reading	Normal (k=2)	±0.3
Cable loss calibration	Normal (k=2)	±0.3
Antenna factor calibration	Rectangular	±0.9
Pre Amplifier Gain calibration	Rectangular	±0.3
RCV/SPA specification	Rectangular	±0.2
combined standard uncertainty Ue(y)	normal	±1.0
Measuring uncertainty for a level of confidence of 95% U=2Ue(y)	normal (k=2)	±2.0

SAMPLE OF FCC VERIFICATION LABEL 1

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference. And (2) this device must accept any interference received, including interference that may cause undesired operation.

SAMPLE OF FCC DOC LABEL 2

Trade Name
Model Number

Appendix 1

PHOTOS OF TEST CONFIGURATION

CONDUCTED POWER LINE TEST

Front View

Rear View

RADIATED EMISSION TEST

Front View

Rear View

Appendix 2

TEST DATA

Test Data Of Conducted Emission Measurement (LINE)

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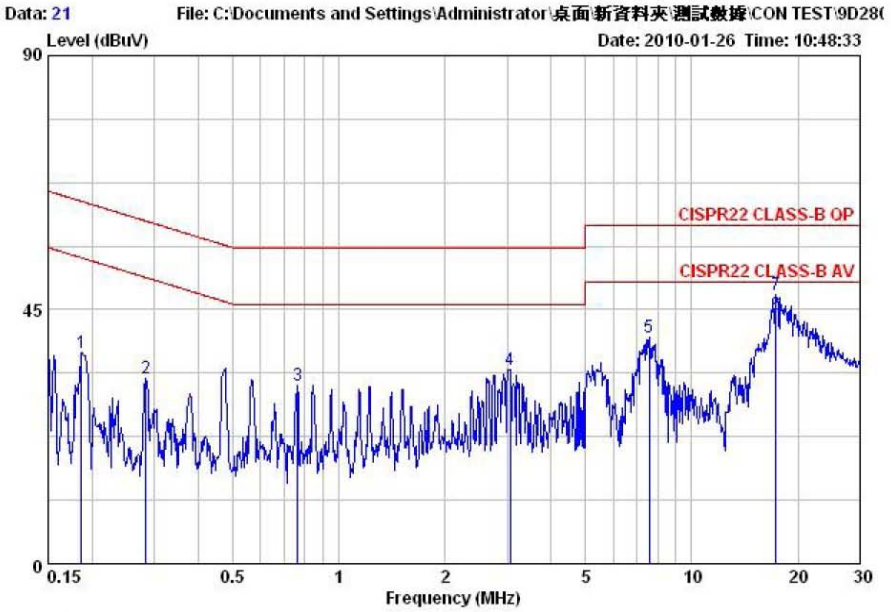

Site : Conducted
Condition : CISPR22 CLASS-B QP NNB41-080924 0310015 LINE
: RBW:9KHz VBW:300KHz SWT:Auto
EUT : 15 G-WIN Rugged Panel PC
MODEL : R15IA3S-VMM5HB
MEMO :

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.19	27.11	10.15	37.26	64.20	-26.94	Peak
2	0.28	22.56	10.16	32.72	60.72	-28.00	Peak
3	0.76	21.34	10.21	31.55	56.00	-24.45	Peak
4	3.06	23.99	10.34	34.33	56.00	-21.67	Peak
5	7.57	29.58	10.43	40.01	60.00	-19.99	Peak
6	17.29	33.51	10.53	44.04	50.00	-5.96	Average
7	17.29	37.08	10.53	47.61	60.00	-12.39	Peak

Test Data Of Conducted Emission Measurement ((NEUTRAL)

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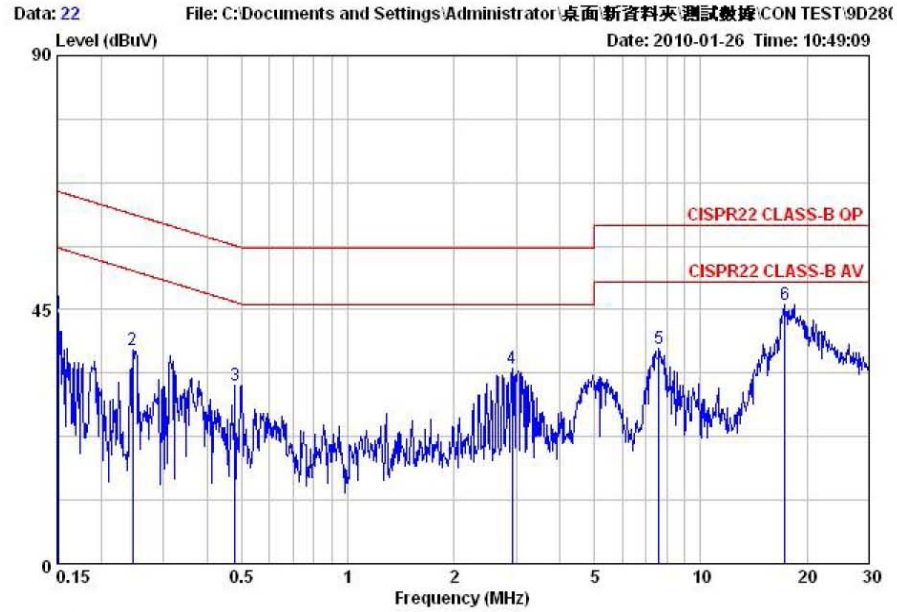

Site : Conducted
Condition : CISPR22 CLASS-B QP NNB41-080924 0310015 NEUTRAL
: RBW:9KHz VBW:300KHz SWT:Auto
EUT : 15 G-WIN Rugged Panel PC
MODEL : R15IA3S-VMM5HB
MEMO :

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.15	34.24	10.15	44.39	65.91	-21.52	Peak
2	0.25	27.75	10.16	37.91	61.91	-24.00	Peak
3	0.48	21.51	10.19	31.70	56.36	-24.66	Peak
4	2.92	24.18	10.32	34.50	56.00	-21.50	Peak
5	7.61	27.71	10.42	38.13	60.00	-21.87	Peak
6	17.29	35.34	10.55	45.89	60.00	-14.11	Peak

Test Data Of Radiated Emission Measurement (Horizontal)

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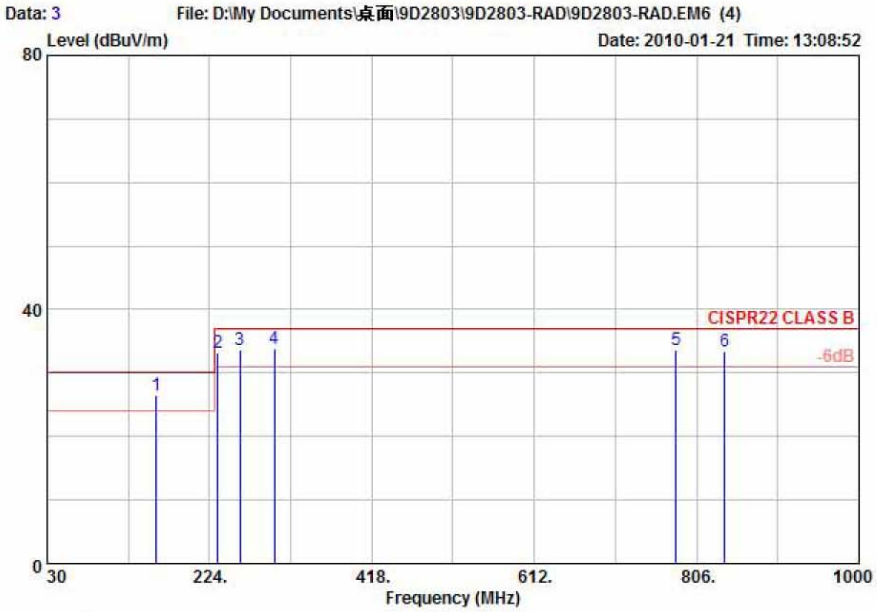

Site : Open Area Test Site 1
Condition : CISPR22 CLASS B 10m HORIZONTAL
: RBW:120KHz VBW:300KHz SWT:Auto
EUT : 15 G-WIN Rugged Panel
MODEL : R15IA3S-VMM5HB
MEMO :

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1 !	160.82	30.30	-3.84	26.46	30.00	-3.54	QP
2 !	233.84	37.01	-3.80	33.21	37.00	-3.79	QP
3 !	260.73	36.29	-2.65	33.64	37.00	-3.36	QP
4 !	301.28	34.85	-1.08	33.77	37.00	-3.23	QP
5 !	781.29	23.19	10.47	33.66	37.00	-3.34	QP
6 !	839.47	21.75	11.76	33.51	37.00	-3.49	QP

Test Data Of Radiated Emission Measurement (Vertical)

環球認證有限公司
Global Certification Corp.
Global Certification Corp.
No.146,Shiang Charng Rd., Sec. 2,
Hsi Chih, Taipei Hsien 221, Taiwan, R.O.C.
TEL:886-2-26426992 FAX:886-2-26487450
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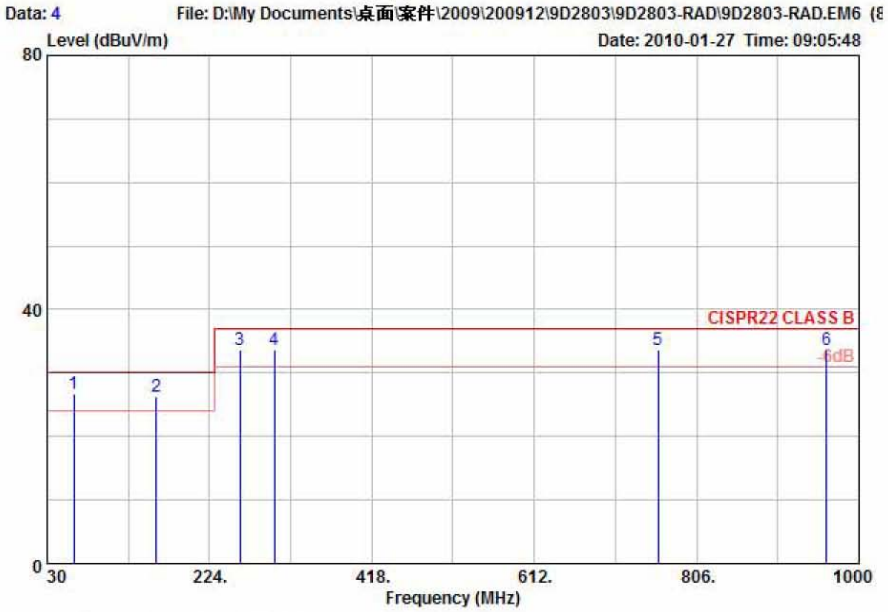

Site : Open Area Test Site 1
Condition : CISPR22 CLASS B 10m VERTICAL
: RBW:120KHz VBW:300KHz SWT:Auto
EUT : 15 G-WIN Rugged Panel
MODEL : R15IA3S-VMM5HB
MEMO :

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1 !	61.83	35.77	-9.10	26.67	30.00	-3.33	QP
2 !	160.82	30.21	-3.84	26.37	30.00	-3.63	QP
3 !	260.65	36.23	-2.66	33.57	37.00	-3.43	QP
4 !	301.28	34.81	-1.08	33.73	37.00	-3.27	QP
5 !	759.96	23.70	10.01	33.71	37.00	-3.29	QP
6 !	961.23	18.94	14.73	33.67	37.00	-3.33	QP

Test Data Of Radiated Emission Measurement (Horizontal)

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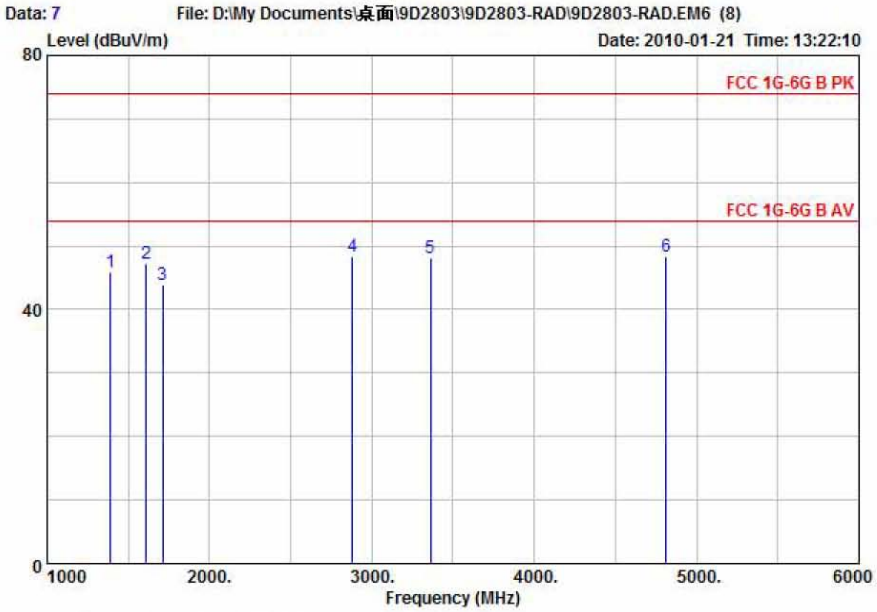

Site : Open Area Test Site 1
Condition : FCC 1G-6G B PK 3m HORIZONTAL
: RBW:1000KHz VBW:1000KHz SWT:Auto
EUT : 15 G-WIN Rugged Panel
MODEL : R15IA3S-VMM5HB
MEMO :

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	1390.00	57.68	-11.86	45.82	74.00	-28.18	Peak
2	1610.00	58.41	-11.15	47.26	74.00	-26.74	Peak
3	1710.00	54.65	-10.83	43.82	74.00	-30.18	Peak
4	2880.00	52.56	-4.15	48.41	74.00	-25.59	Peak
5	3360.00	53.02	-4.78	48.24	74.00	-25.76	Peak
6	4810.00	47.30	0.95	48.25	74.00	-25.75	Peak

Test Data Of Radiated Emission Measurement (Vertical)

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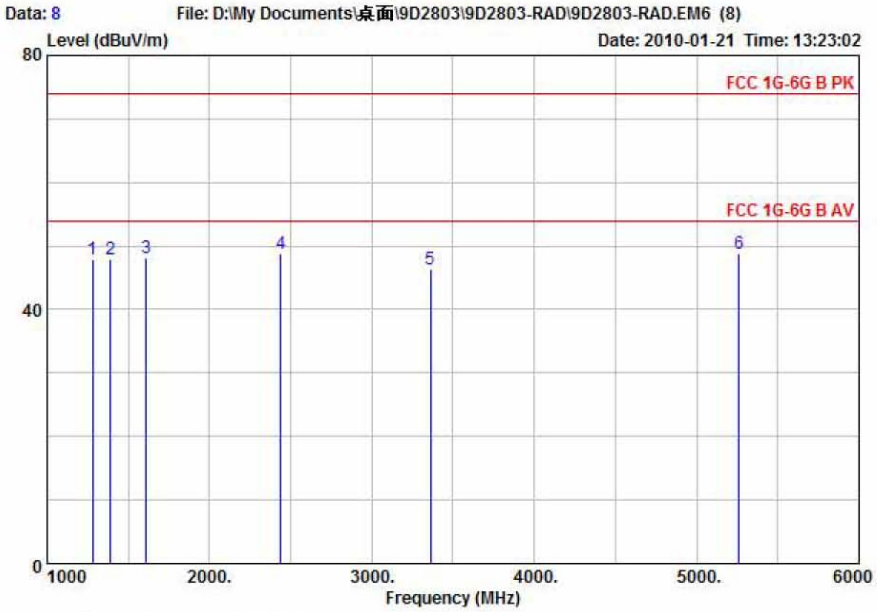

Site : Open Area Test Site 1
Condition : FCC 1G-6G B PK 3m VERTICAL
: RBW:1000KHz VBW:1000KHz SWT:Auto
EUT : 15 G-WIN Rugged Panel
MODEL : R15IA3S-VMM5HB
MEMO :

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	1280.00	60.11	-12.20	47.91	74.00	-26.09	Peak
2	1390.00	59.68	-11.86	47.82	74.00	-26.18	Peak
3	1610.00	59.39	-11.15	48.24	74.00	-25.76	Peak
4	2440.00	55.02	-6.11	48.91	74.00	-25.09	Peak
5	3360.00	51.09	-4.78	46.31	74.00	-27.69	Peak
6	5260.00	48.38	0.53	48.91	74.00	-25.09	Peak